From: McCarter, Jennifer
To: Bailley, Treasure

Cc: Morrison, Kendra; Churchill, Stephen; Jacobson, Linda; Kilty, Quinn V

Subject: RE: Comanche Station field work

Date: Thursday, August 6, 2020 4:03:23 PM

Hi Treasure, HDR is working on the southeast perimeter well (W-8) today and will finish up tomorrow. On Tuesday, we had discussed moving next to the northwest perimeter well. However, we now think it is best to move to the landfill wells, and plan to begin there on Monday. I know you are interested in seeing one of the landfill well deeper borings, so wanted to give you as early notice as possible of the updated schedule. Are you available to come down early afternoon Monday? There likely won't be much to see in the morning as they get set up and advance through the colluvium.

Jennifer McCarter, R.E.M.

Xcel Energy

Environmental Analyst

Environmental Services Department

1800 Larimer St., Suite 1300, Denver, CO 80202-1414 P: 303-294-2228 C: 720-810-1220 F: 303-294-2328

E: jennifer.mccarter@xcelenergy.com

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From: McCarter, Jennifer

Sent: Thursday, August 6, 2020 1:27 PM

To: Bailley, Treasure <Bailley.Treasure@epa.gov>; Jacobson, Linda <Jacobson.Linda@epa.gov>

Cc: Morrison, Kendra < Morrison. Kendra@epa.gov>; Churchill, Stephen

<Churchill.Stephen@epa.gov>; Kilty, Quinn V <quinn.v.kilty@xcelenergy.com>

Subject: RE: Comanche Station field work

You bet, we'll give you an update tomorrow afternoon.

Jennifer McCarter, R.E.M.

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From: Bailley, Treasure < <u>Bailley.Treasure@epa.gov</u>>

Sent: Thursday, August 6, 2020 1:25 PM

To: McCarter, Jennifer < <u>iennifer.mccarter@xcelenergy.com</u>>; Jacobson, Linda

<<u>Jacobson.Linda@epa.gov</u>>

Cc: Morrison, Kendra < Morrison. Kendra@epa.gov>; Churchill, Stephen

<<u>Churchill.Stephen@epa.gov</u>>

Subject: RE: Comanche Station field work

EXTERNAL - STOP & THINK before opening links and attachments.

Hey sorry Linda (and Jennifer), I didn't think to include everyone on the scheduling discussion, which Jennifer was replying to below. That was my oversight.

Thank you, Jennifer, for the follow-up, and for the photos. I'm looking forward to hearing how far the drillers get tomorrow and whether they make it to the northwestern perimeter well.

From: McCarter, Jennifer < <u>jennifer.mccarter@xcelenergy.com</u>>

Sent: Wednesday, August 5, 2020 1:31 PM **To:** Jacobson, Linda < <u>Jacobson, Linda@epa.gov</u>>

Cc: Bailley, Treasure < <u>Bailley.Treasure@epa.gov</u>>; Morrison, Kendra < <u>Morrison.Kendra@epa.gov</u>>;

Churchill, Stephen < Churchill.Stephen@epa.gov>

Subject: RE: Comanche Station field work

Will do Linda, sorry for the oversight. We don't have a formal schedule, but expect to complete the eastern perimeter wells this week, and possibly begin on the northwestern perimeter well Friday. Next week we would finish the NW well and proceed to the landfill wells, as needed. I would expect the field work will wrap up end of next week, or possibly early the following week. Borings completed as permanent wells and added to the monitoring network would be documented in an updated GW system certification and well installation report. We could include logs and discussion of borings that are not completed as wells in the well install report, or separately; we haven't discussed that level of detail yet. Hope this helps! Jennifer McCarter, R.E.M.

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From: Jacobson, Linda < Jacobson.Linda@epa.gov>

Sent: Wednesday, August 5, 2020 10:34 AM

To: McCarter, Jennifer < <u>jennifer.mccarter@xcelenergy.com</u>>

Subject: Comanche Station field work

EXTERNAL - STOP & THINK before opening links and attachments.

Jennifer,

Treasure shared the email below with us. Would you please add Kendra Morrison, Stephen Churchill and me to future emails on this project? Thanks.

Also, if you have developed a schedule, would you share that also? Will a report be developed for this fieldwork?

Linda Jacobson

From: McCarter, Jennifer < <u>iennifer.mccarter@xcelenergy.com</u>>

Sent: Monday, August 3, 2020 12:00 PM

To: Bailley, Treasure < <u>Bailley.Treasure@epa.gov</u>>

Cc: Bodry, Renee A < Renee.A.Bodry@xcelenergy.com >; Kilty, Quinn V < quinn.v.kilty@xcelenergy.com >; jill.parisi@state.co.us >

Subject: RE: checking-in

Hi Treasure, I was just in the process of emailing you, when I got interrupted by a call. Yes, that works for me too, and I think the timing will be productive re: field observations. Brief summary below.

I have a call from 9-10 that I am trying to get rescheduled, but if not it would be best to meet

before or after that. I could meet you at 8 a.m. if that works?

Here is a brief description of the deeper boring at W-2B. We will name the shallow well at this location W-2A.

W-2B – Deeper Boring at W-2 described below. Temp well screen placed at 38-58' and 2' of bentonite placed above screen to keep the water from weathered bedrock zone out.

0-7 colluvium, dry to 6 ft low moist after 6ft

7-23 clay (very highly weathered shale/shale derived), low moist to moist on fresh breaks

23-34 weathered fractured shale, some highly fractured zones, iron staining, remineralization along fractures, moist.

Stopped drilling at 30' to observe and water came up to 23ft in open borehole. 34-60 strong shale, no natural fractures (fractures induced along bedding planes during drilling). Clayey weak zones (4-6 in) at 38 & 39ft, rock moist on fresh breaks in vicinity. Water decreasing in fresh breaks after about 40ft, dry on fresh breaks after 45. Another weak clay lens (1in, bentonitic) at 51ft.

Now they are drilling W-2A and will permanently screen from 23-33 feet. No need for temp well because they saw the water here.

Jennifer McCarter, R.E.M.

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From: Bailley, Treasure < <u>Bailley.Treasure@epa.gov</u>>

Sent: Monday, August 3, 2020 11:47 AM

To: McCarter, Jennifer < <u>iennifer.mccarter@xcelenergy.com</u>>

Subject: checking-in

EXTERNAL - STOP & THINK before opening links and attachments.

How did things go on Friday? It looks like I'll be able to travel to Comanche tomorrow, and would be great to be able to see some core. If that still works for you (and/or Renee), let's try to sort out a good time. I hope all's moving smoothly!

Treasure

Treasure Bailley, Ph.D.

Geologist, Technical Assistance Branch

Laboratory Services and Applied Sciences Division

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